

W3 Communications, Inc.
Description of Proposed Operations
FCC Form 442 – Exhibit 2

W3 Communications, Inc. (W3 Comm) is a new provider of fixed wireless services for medium-to-major markets in the United States. W3 Comm plans to develop and deploy systems for the delivery of efficient local and long-distance telephone services, high-speed Internet access service and Voice over Internet Protocol (VoIP) services to residential, commercial and government (including local governments and schools) customers using radio spectrum in the 3650-3700 MHz band. W3 Comm expects that this promising new technology can be used to provide advanced telecommunications services to communities presently underserved by the major telecommunications companies. Such communities include the medium-sized population centers and underserved ethnic groups within the larger urban areas.

To support this advanced system development, W3 Comm hereby requests experimental authority to conduct system performance trials in various areas to determine the relationship between theoretical performance predictions and actual system performance of new technology for high speed, non-line of sight (NLOS) wireless broadband service under varying signal propagation conditions typical in urban and rural areas. W3 Comm also requests authority to conduct limited market studies to test the demand for these services in various sized markets. W3 Comm will own the equipment, and will notify the customers of the experimental nature of its authorization.

The objective of the trials proposed herein is to determine the feasibility and optimal equipment configuration requirements for utilization of the 3650-3700 MHz band to deploy high-speed NLOS wireless Internet and VoIP services to indoor and outdoor installations within the various markets proposed in the application.

W3 Comm proposes to use 20 MHz wide channels. Primary base station and remote equipment has been specified, and if alternative equipment is available for deployment, W3 Comm will modify its authorization to specify any such additional equipment. All base stations and remote devices used in these tests will be professionally installed, and will operate in compliance with Part 15 of the Commission's Rules.

While the equipment will be Part 15 compliant, a specific goal of these tests is to monitor for interference in the adjacent frequency bands. From these tests, W3 Comm should be able to determine if additional filtering at the band edges is necessary to avoid adjacent channel interference. Nonetheless, should any interference to adjacent channel users of this band occur, W3 Comm would take immediate action, including discontinuance of operation, to eliminate the interference.

An important aspect of these trials is to determine the reliable coverage capabilities of this band for Part 15-type fixed wireless communications to both indoor and outdoor installations. Such information will allow W3 Comm to establish minimum

system design specifications to achieve reliable coverage in differing urban and rural deployments. Parameters to be determined by these experimental operations include the following:

- Maximum coverage area from a single hub site;
- Signal reliability over time;
- Signal penetration losses through foliage and building walls;
- Changes in signal propagation due to variance in weather conditions; and
- System durability based on the number of users simultaneously accessing the network.

For further information regarding the information submitted in this application, please contact W3 Comm as specified in the application.